

# CLEAN WATER ACT INDIAN SET-ASIDE GRANT PROGRAM



## SUCCESS STORY

### Makah Community Wastewater Facility, Washington

The Makah Indian Reservation is located on the northwest continental tip of the Olympic Peninsula in Klallam County, Washington, approximately 140 miles west of Seattle. The Makah were traditionally a maritime people who subsisted on fish and shellfish and hunted whale. The people were also closely tied to the maritime forests and used cedar for clothing, basketry, and boxes. The Makah is the only tribe in the U.S. to speak a Wakashan language.

#### Makah Reservation



The shoreline of the Reservation is typified by rocky headlands and sandy beaches, while the interior of the Reservation is dominated mainly by rugged mountains. There are four major watersheds which drain the main Reservation areas. There are two communities on the reservation; Neah Bay, situated at the north end overlooking the Strait of Juan de Fuca; and Makah, located 3 miles south overlooking the Pacific Ocean. Today, Neah Bay is a commercial fishing and timber community, as well as a tourist and sport fishing destination.

The original community wastewater system that served Neah Bay was constructed in 1973-74 to serve a then-present 219 homes and 31 commercial buildings. It was designed for an average daily flow of 107,000 gallons and included a single cell, 1.8 million gallon circular facultative sewage lagoon to which an aerator was added in 1975. By 1989, a total of 172 homes and several new commercial buildings had been added to the collection system, bringing the total to 391 permanent residences and 49 commercial and other facilities. The daily flow had reached 270,000 gallons.

The Makah community consisted of 46 homes and an old Air Force dormitory compound. Sewage was sent to a small activated sludge package treatment plant. The effluent was then chlorinated and discharged into a river.

On July 5, 1990, after two inspections identified numerous significant deficiencies that posed serious

public health hazards, EPA issued a Compliance Order (CO) to the Makah Tribe. The CO identified a need for a comprehensive engineering review to (1) examine the existing wastewater systems and, (2) develop a plan to improve the Tribe's wastewater treatment capabilities to serve the existing communities of Neah Bay and Makah. In 1991, the Tribe contracted with a consulting firm to complete a wastewater facility plan.

The wastewater facilities plan recommended locating a new facility to serve both the Neah Bay and the Makah communities in an existing quarry site. The new system included two complete-mix aerated lagoons and two sludge settling ponds using earthen dikes, with final effluent disposal to an effluent force main and a new ocean outfall in Neah Bay. It also included a new pump station and force main at the Makah community to transport wastewater to the treatment facilities. This quarry site posed the least adverse impacts to the aquatic environment and provided better potential for expansion and ease of land acquisition. The project involved the taking of wetlands, so a 401 Water Quality Certification was needed from EPA and a 404 (b)(1) permit was needed from the U.S. Army Corps of Engineers. Best Management Practices were established to limit damage to wetlands and a wetlands mitigation plan was developed and is being implemented by the Tribe.

In January, 1992, EPA awarded a \$2,130,000 grant to the tribe under the Clean Water Act Indian Set-Aside Program. A construction contract for the new ocean outfall for Makah was awarded in 1994 and the project was completed in 1995. The sewage treatment facilities for Makah and Neah Bay were completed and transferred to the communities in 1997. This project was considered a significant success because it was multi-agency funded; the tribe played a major role in managing the work; the project combined two existing wastewater facilities into one, eliminating the two existing failing ones; and it allowed the Tribe to expand its residential population as well as its commercial services. This project could not have occurred without the support of the CWA ISA program. The reservation now has modern wastewater treatment facilities that have reduced health hazards any potential harm to the environment.